

STORM DRAIN STENCILING NOTEBOOK

A GUIDE FOR LOCAL COMMUNITIES



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Sponsored by:
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STORM DRAIN STENCILING NOTEBOOK

A GUIDE FOR LOCAL COMMUNITIES

The Storm Drain Education Notebook illustrates the resources and materials needed for municipalities and civic organizations to organize and implement a storm drain stenciling program in their local community. Storm drain stenciling programs help communities to comply with components of storm water regulations, improve local water quality, and educate citizens about the hazards of dumping waste materials into or near storm drains.

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WATER POLLUTION

A simple act, such as washing a car in the driveway, fertilizing a lawn, or walking a dog down the street could substantially damage water quality. When it rains, water washes litter, motor oil, anti-freeze, pet wastes, excess fertilizers and pesticides, leaves and grass clippings, and other waste materials into storm drains. Contrary to popular belief, most storm drains do not connect to a water treatment facility. As a result, polluted rainwater drains directly into local streams, rivers, lakes, and ponds.



POINT SOURCE POLLUTION

Point source pollution comes from a concentrated, stationary source that typically occurs at a single point like an industrial plant discharge pipe or a sewage treatment plant outfall. These pollution sources are easily identified and regulated by many federal, state and local laws.

NONPOINT SOURCE POLLUTION

Nonpoint source pollution comes from a diffuse, wide area and is not tied to a specific origin. Nonpoint sources of water pollution occur when rain or snowmelt runoff roofs, lawns and road surfaces washing pollutants into storm sewers and ultimately into water bodies. Though the effect on the environment is not immediately apparent, the cumulative impacts on local water bodies can significantly degrade fish habitat, drinking water supplies, and recreational opportunities.

WATER POLLUTION IN THE COMMONWEALTH OF MASSACHUSETTS

In the Commonwealth of Massachusetts, many waterways have been impaired and contaminated by nonpoint source pollution. Sixty percent (60%) of the rivers assessed in the Commonwealth of Massachusetts fail to meet federally mandated water quality standards. Eighty-nine (89%) percent of these streams fail to meet standards because of polluted runoff or nonpoint source pollution.

In the 1998 Connecticut River Basin Water Quality Assessment Report, the Massachusetts Department of Environmental Protection found that the entire length of the Connecticut River mainstem in Massachusetts did not support the water quality standards designated for Class B waters. Class B waters should be of such quality that they are suitable for a drinking water supply after treatment, fishing, recreation in and out of the water, and as habitat for fish and other aquatic life. One of the major reasons the waters of the Connecticut River failed to meet these standards is because of the presence of organics, pathogens and suspended solids with one of the major sources being from urban runoff. Many of the tributary streams to the Connecticut River were characterized as "threatened" due mainly to nutrients, pesticides, siltation, pathogens, organic enrichment, and thermal modifications. Sources of these contaminants were identified in all but two tributaries as exclusively nonpoint in origin and included: urban runoff/storm sewers, land development, silviculture, recreational activities, on-site wastewater treatment systems, and agriculture.

STORM WATER MANAGEMENT PLANS

The United States Environmental Protection Agency (US EPA) found that discharges from storm drain systems are a major source of water pollution nationwide. To improve water quality and reduce nonpoint source pollution, the US EPA has mandated many communities to comply with Storm Water Regulations. Under Phase II of the regulations, communities must develop a management plan and implement measures that minimize the impacts of storm water runoff. There are six categories a municipality must address in their storm water management plans. These include: public education and outreach; public participation and involvement; illicit discharge detection and elimination; construction site runoff control; post-construction runoff control; and pollution prevention and good housekeeping. As part of the public outreach and education component of the regulations, the US EPA recommends that communities implement local storm drain education programs.

Storm drain education programs educate the public about the impacts of storm water discharges into local waterbodies and the steps that can be taken to reduce storm water pollution. The US EPA encourages communities to form partnerships with other governmental entities and non-governmental organizations (e.g. environmental, civic, business, and industrial) to implement education programs and to use educational materials and strategies that reach diverse audiences. The US EPA believes that the support for the storm water management plan will depend heavily on public support and understanding of the reasons why it is necessary and important. Not only do storm drain education programs involve and educate the public, they also make the public more aware of the personal

responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve local water quality.

STORM DRAIN CONNECTION

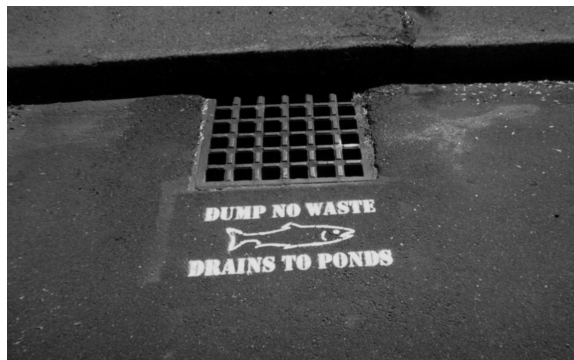
People commonly mistake storm drains for treatment systems. As a result of this misconception, they will often dump waste products, such as used motor oil, paint or household hazardous waste, down storm drain inlets. Furthermore, during rain events, other hazardous products and materials, such as fertilizers, pet wastes, pesticides and herbicides, often flow down the storm drain and directly into local waterbodies.



Many Americans underestimate the impacts their actions have on their local water bodies. A National Geographic Society's poll found that 2/3 of Americans believe that most pollution in rivers is from industrial sources, when in fact nonpoint source pollution is the largest source of river pollution. In addition, over 3/4 of Americans underestimate the extent of a spill caused by dumping a quart of motor oil down a storm drain. In order to make people more aware of the impacts their daily actions have on local waterbodies, many communities and organizations have initiated storm drain education programs. These programs educate residents and businesses about nonpoint source pollution and the connection between storm drains and local waterways. The objective of these programs is to reduce nonpoint source pollution from the improper storage, use and disposal of household hazardous waste, lawn and garden products, and pet wastes.

STORM DRAIN STENCILING

Communities across the country have marked their storm drains with messages that warn residents not to dump hazardous materials into or near the storm drain. This highly visible message alerts citizens to the storm drain connection and discourages them from dumping materials down storm drain inlets. Educational and outreach materials, support the "Do Not Dump" message by educating the public about nonpoint source pollution and pollution prevention.



Why organize a Storm Drain Marking Activity?

- To alert residents to the many storm drains that do not connect to treatment facilities and drain directly to streams, lakes and ground water.
- To educate a neighborhood or community on the water quality impacts and hazards of dumping and using oil, antifreeze, fuels, paints, leaves, grass clippings, pesticides, chemicals and other waste materials into or near storm drains.
- To involve the public in an educational community service project.
- To meet the educational requirement in the U.S. Environmental Protection Agency mandated Stormwater Permit Program.
- To help solve an illegal dumping problem in a neighborhood or community.

MATERIALS

Storm drains are often labeled with a stencil, decal or marker. The most common method is to paint a stencil message near the storm drain. Most stencils are made from mylar, a flexible plastic material that can be cleaned and reused many times. Stencils can also be made from cardboard, aluminum or other metal.

A single stencil can be used to imprint the message directly onto the concrete above the storm drain inlet. Though some communities use a two-phase stencil process to create a background for the stencil message. A rectangular area is painted in one color, usually white, and then the stencil message is painted on top of it in a contrasting color. Most stencil messages last 1-3 years before they need to be repainted.

Paint can be sprayed on or applied by a brush or roller. Spray paint is the quickest and easiest way to apply the stencil neatly. However, certain areas that do not meet air quality standards may choose to avoid spray paints. Many cities often use “Environmentally friendly” paints — paint that contains no heavy metals and are low in volatile organic compounds. In some communities, empty aerosol cans and paint cans can be recycled.

Some communities use permanent signs or markers made of aluminum, plastic, ceramic or other durable materials to label storm drain inlets. These markers come in a variety of shapes and colors. Markers are placed on the curb located directly behind the storm drain inlet. These signs tend to last longer than the stencil messages and only require adhesive to apply them to the curb. Many volunteers find that this method of marking storm drains is easier than painting a stencil message. However, some markers are inevitable lost to snow plows and street sweepers. Additionally, pedestrians can dislodge the markers before the adhesive dries.

STENCILS VS CURB MARKERS

STENCILS

ADVANTAGES

- Lower Cost Per Storm Drain
- Can Be Reused Numerous Times
- When You Repaint The Stencil, You Remind People Of Why The Message Is There
- Higher Visibility Due To Larger Message

DISADVANTAGES

- Messy And More Intensive Process To Apply Message To Storm Drain
- Requires Additional Supplies, Such As Paint, Gloves, Rags, Etc.
- Message Only Lasts 1-3 Years Before It Needs To Be Repainted
- The Paint Will Ultimately Wash Down The Storm Drain
- Less Environmentally Friendly

CURB MARKERS

ADVANTAGES

- Sturdy And More Durable
- Less Labor Intensive
- Only Requires Adhesive
- Easy To Use
- More Aesthetically Pleasing
- Requires Less Volunteer Time, Thus More Storm Drains Can Be Marked

DISADVANTAGES

- Pedestrians, Snow Plows And Street Sweepers Can Dislodge Marker
- Less Visible Due To Smaller Size
- Higher Initial Cost
- Non Reusable
- Volunteers Need To Carry Adequate Supply With Them To Ensure That All The Storm Drains Are Marked
- Needs A Flat, Smooth Surface

Permanent signs are more expensive than stencils. Ceramic tiles cost between \$5-6 each; plastic curb markers can cost between \$1.50 - \$15.00 each, depending on the size, durability, and whether it needs to be custom manufactured. In contrast, mylar stencils cost about \$.45 per linear inch and can be used for 25 to 500 stencilings, depending on whether paint is sprayed or applied by brush or roller. Municipal officials tend to prefer markers and permanent signs, as opposed to stencils, because they are cleaner and more easily applied.

Some municipalities now require contractors who build new storm drain inlets or replace old ones to install a permanent “Do Not Dump” sign. These signs are imprinted right on the storm drain grate or embedded within the curb above the storm drain. The cost prohibits these signs from being installed on existing storm drains. However, these signs are the most permanent and durable and will last well over the expected life span of other storm drain markers. Thus, when installed on new storm drains, these signs could be cost-effective.

MESSAGE

Standard stencils and markers usually include a message or slogan that encourages people not to dump materials into the storm drain and reminds them that storm drains connect to local waterways. Communities may target specific types of dumping, such as motor oil or chemicals. The most important message to convey is that storm drains drain directly to local waterways.

POSSIBLE MESSAGES AND SLOGANS:

NO DUMPING. DRAINS TO {WATER SUPPLY, LAKE, POND, RIVER, STREAM, ETC.}.

DON'T DUMP. PROTECT OUR WATER.

YOU DUMP IT, YOU DRINK IT. NO WASTE HERE.

NO OIL OR CHEMICALS. DRAINS TO {WATER SUPPLY, LAKE, POND, RIVER, STREAM, ETC.}.

NO POLLUTING. DRAINS TO {WATER SUPPLY, LAKE, POND, RIVER, STREAM, ETC.}.

DO NOT DUMP. FLOWS TO {WATER SUPPLY, LAKE, POND, RIVER, STREAM, ETC.}.

LET ONLY RAIN DOWN THE STORM DRAIN.

BE PART OF THE SOLUTION TO STORM WATER POLLUTION.

Messages can be customized to refer to a specific waterway, e.g. "Drains to Watershops Pond" or "Drains to Sugarloaf Brook." These customized messages improve local programs by more effectively conveying that the storm drain connects to local water bodies.

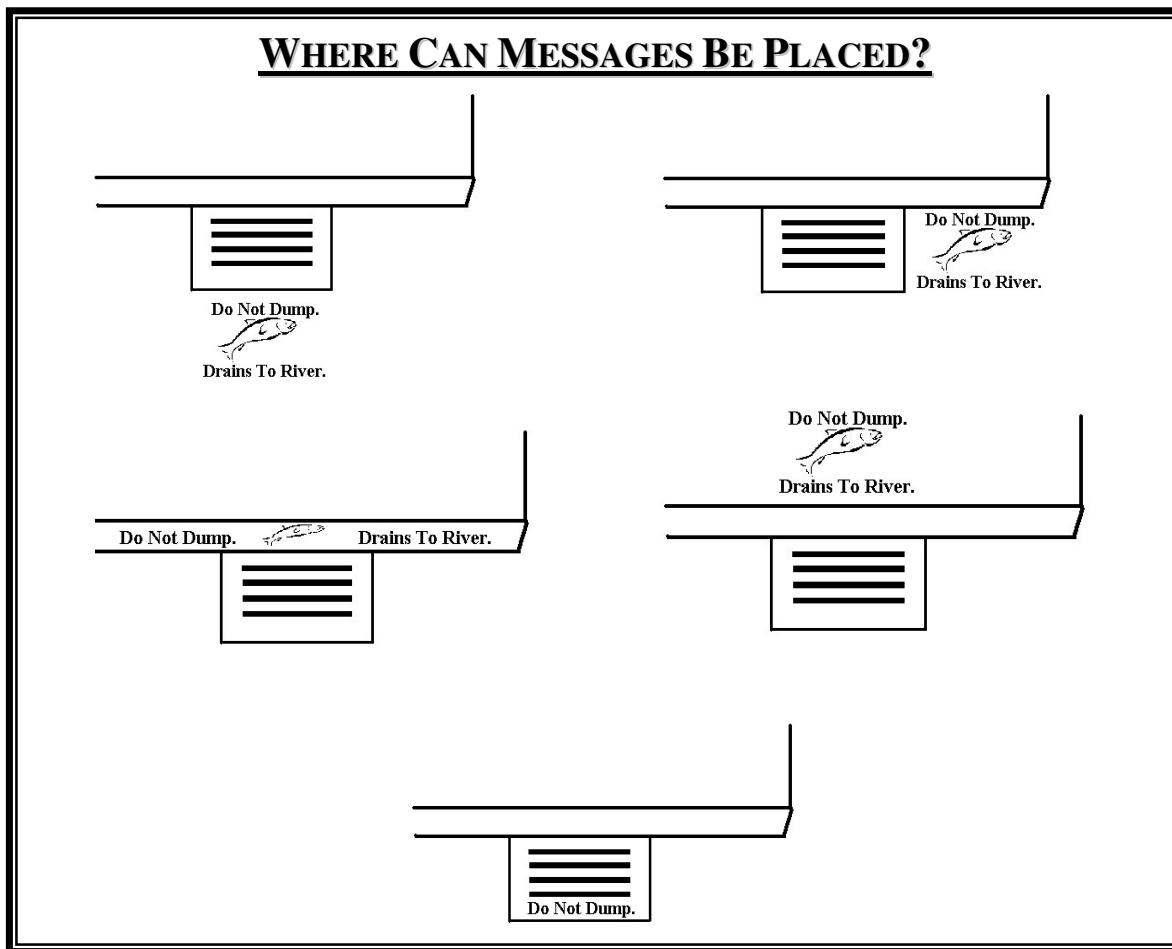
Stencils and markers will often include a graphic, logo or mascot. These images reinforce the verbal message and can also be used in outreach and educational materials. Fish and other aquatic creatures are the most common images used. Images can relate to local interests and values. For example, many coastal towns use a picture of a lobster or a shrimp to remind people that dumping may affect the local fishing industry. Sometimes the images are descriptive in nature. For example, some communities actually show a storm drain dumping pollution into the waterway. These types of images work well in communities with a diverse speaking population.

Many stencil and marker manufacturers are able to translate the storm drain message into multiple languages, including Spanish, Korean, Portuguese, and French. In order to communicate the storm drain connection to a larger audience, messages in multiple languages can be alternated along the street.

PLACEMENT OF THE MESSAGE

Where you place the stencil or marker will depend on the type of storm drain you encounter, the condition of the storm drain, and local municipal requirements. Markers are placed on the smooth face of the curb directly behind the storm drain inlet. If the curb behind the storm drain inlet is damaged or crumbling, then it may be difficult to secure the marker to the curb. Some storm drain inlets do not have a curb located nearby, thus no surfaces exist to affix the storm drain marker.

Stencil messages can be positioned in several ways. If the storm drain has a curb that is in good condition, the message can be placed on the curb facing the street. Some stencils are placed flat against the sidewalk surface just above the storm drain inlet. However, caution must be taken to ensure that pedestrians do not slip or step in the wet paint. Many stencils are placed in the street, either upstream of the storm drain or in front of the storm drain. Stencils placed out in the roadway, tend to fade faster than stencils placed on curbs or sidewalks. Wherever the stencil is placed, the “Do Not Dump” message should be visible to any person who plans to dump something down the storm drain.



PROGRAM STRUCTURE

Storm drain education programs can be structured in a variety of ways. The municipality could establish a program to comprehensively address storm drain stenciling

and actively recruit volunteers; or they can facilitate volunteer groups that take initiative to undertake stenciling projects.

Some public works departments may label the community's storm drains because they find that having their own crews do the work produces better results and eliminates liability and safety concerns. However, many communities will have difficulty funding storm water management programs. Volunteer involvement will prove to be a critical element to a successful program. Businesses will also provide critical support to a storm drain education program by providing materials, donations, publicity and fundraising.

Municipalities that partner with civic organizations will often provide stencil kits, safety equipment and other forms of support, while the organizations solicit volunteers and provide the labor. If the civic organization initiates the storm drain education project, it

WORKING WITH YOUR MUNICIPAL GOVERNMENT

It may be necessary to speak directly with your local municipal boards to get permission to mark storm drains.

- 1. Identify the municipal officials you need to get permission from in order to mark storm drains in your community.**
- 2. Set-up a time to give a presentation about your project.**
- 3. Spray your stencil onto a piece of tagboard or bring a sample of your marker to the meeting so the municipal officials can see what the stencil/marker will look like on the streets.**
- 4. Ask students or younger members of your group to participate in the presentation.**
- 5. Explain what causes nonpoint source pollution and then explain that marking storm drains is a way to educate the community and build awareness about nonpoint source pollution and how storm drains connect to local waterbodies.**

must be sure to obtain the support and cooperation of local authorities.

Before municipal officials allow volunteers to label storm drains, they may decide to inventory, map and identify a subset of storm drain inlets to be stenciled. When municipalities inventory the storm drains, they should consider traffic and safety concerns, scheduled road repairs, visibility of the storm drain message and intended audience. For example, a highway would be a low priority area because the large amount of fast moving traffic would be a high safety risk and few people would actually notice the messages labeled on the storm drains. Comparatively, a main street, where many people live, work, eat, shop, and attend meetings, may be considered a high priority area. Target audiences may also influence what storm drains are marked. For example, a service business area, where you would find service stations, restaurants, and other commercial establishments may have higher priority than a neighborhood.

Once storm drain inlets have been prioritized, municipalities should establish a simple application that collects detailed information from volunteers about their storm drain marking projects (See Appendix J, Storm Drain Stenciling/Marking Application). By having volunteer groups submit a standard application, the municipality can easily track, coordinate

and review storm drain marking activities within the community. The municipality should designate a person to review and approve proposed projects.

VOLUNTEERS

Storm drain marking programs encourage people of all ages to get involved in a community service project to protect water quality. Volunteers could include scout troops, environmental organizations, neighborhood associations, rotary clubs, youth groups, 4-H clubs, chambers of commerce, volunteer centers, schools and other civic and service organizations. Not only do these organizations provide a volunteer base for storm drain education events, they can also provide publicity, outreach materials and expertise.

RECRUITING VOLUNTEERS

Since most storm drain education programs depend heavily on volunteers, organizers and coordinators should be skilled in recruiting, training, and managing volunteers. Volunteers can be recruited through press releases, direct mailings, pamphlets, inserts in local newspapers and publications, public meetings and events. Program coordinators can make presentations to public organizations and groups, such as watershed associations or schools, to encourage them to sponsor a storm drain education event.

OUTREACH STRATEGIES TO SOLICIT VOLUNTEERS:

1. Distribute pamphlets and brochures to area service organizations.
2. Place articles in local magazines and newspapers.
3. Place environmental insert in newspapers.
4. Make presentations at community meetings.
5. Develop a public service announcement for the radio.
6. Create a website with background and contact information as well as photos and stores from past stenciling events.
7. Word-of-mouth communication.

TRAINING VOLUNTEERS

Before participating in a storm drain marking project, volunteers should be trained in the areas of safety, technique and information tracking. In most cases, program coordinators will train a core group of event leaders prior to the event. These event leaders review safety and technique procedures with the other volunteers the day of the event, supervise the work of storm drain teams, and keep track of the storm drains that are marked. The event leaders should be responsible for ensuring that all safety procedures and guidelines are followed.

SAFETY

Since storm drain marking projects take place on city streets, volunteer safety is of the utmost importance. Storm drain marking should always be conducted in teams of two or more people. The size of each team will depend upon the age and number of participants. There should be at least one adult for every four children and at least one adult

for each storm drain team. Most teams average about 4-5 people. One person should be designated the “traffic watcher” and be responsible for watching traffic and warning the other volunteers of potential danger. One to two volunteers should be responsible for marking the storm drain, while the other volunteers go door-to-door to distribute educational materials and to talk with residents and businesses.

All the volunteers should wear brightly colored safety vests. In addition, traffic cones, portable roof-mounted flashing lights and other appropriate safety equipment should be used to alert drivers to the presence of volunteers. In some areas, city work crews or police escorts may be required to insure the highest level of safety. To help protect against liability, many municipalities have established safety guidelines and procedures that prevent injury to volunteers and damage to property (See Appendix K, Sample Storm Drain Stenciling/Marking Project Guidelines). In addition, most municipalities and organizations that sponsor storm drain education events will have volunteers sign waivers of liability (See Appendix L, Sample Waiver of Liability). An attorney for the municipality should be consulted to determine what liability exists and how to handle the issue.

PROGRAM COST

STENCIL KITS

Many municipalities and organizations will put together stencil kits for each of the stencil teams. The initial cost per kit runs roughly between \$40-50. Approximately 2/3 of the cost represents a one-time or occasional expense for items such as buckets, safety vests, whisk brooms, etc.. Approximately 1/3 of the cost represents items, such as paint, gloves, and garbage bags, which need to be re-supplied before each use. Mylar stencils cost approximately \$.45 per linear inch and can be used numerous times. The costs to print door hangers and other educational materials will depend on the quantity. For about 15,000 door hangers it might cost about \$1000. However, if you will only be printing 1,000-1,500 door hangers it can cost up to \$.25 each.

STENCIL KITS TYPICALLY INCLUDE:

- Bucket
- Duct Tape
- Wire Brush
- Whisk Broom
- 2 Trash Bags – One for recyclables, one for trash
- Disposable Latex Gloves – One pair per person
- Spray Paint – 3 to 4 cans (one can will stencil 10-15 storm drains)
- Safety Vests – One per person
- Door Hangers/Brochures
- Rags
- Stencil

DONATIONS

Many local businesses will donate most of the needed supplies. In addition, the Department of Public Works or other municipal department may be able to loan safety vests, traffic cones, portable rooftop mounted flashing lights, and other necessary materials.

PROGRAM COORDINATOR

Many municipalities and organizations that initiate storm drain marking programs designate a person to coordinate, develop, organize and/or assist with storm drain marking projects. The cost will be dependent upon salary and the designated duties and responsibilities. Volunteers and/or interns can assist with many tasks and help reduce the overall cost.

PROGRAM EFFECTIVENESS

In 1998, the Wisconsin Department of Natural Resources (DNR) and the University of Wisconsin Cooperative Extension (UW-Extension) conducted a survey to determine whether stenciled messages influenced people's understanding of storm water issues. The study found that stencil activities increased the awareness that storm drains discharge to nearby waterways. Stencil messages were found to be more influential than television, direct mail, conversations with neighbors, and/or conversations with agency representatives. Newspaper coverage of stencil events increased message awareness more than the stenciled messages themselves. The study also found that stencil messages raised awareness of storm drains in a broader area than just the intended neighborhood.

In addition to the neighborhoods that had been stenciled, storm drains around the Capital in Madison had been stenciled with a "Do Not Dump. Drains to Waterway" message. These stencils were highly visible to many state and business employees, as well as people who attended conferences, entertainment events and the farmer's market.

Though the study did not directly link awareness of basic storm water problems to behavior changes, it did find that messages have an important role in reinforcing positive behaviors. The Wisconsin DNR and UW-Extension recommend that storm drain stenciling programs be a part of a larger educational strategy and annual storm drain stenciling events should be held to keep storm water pollution in mind and to reinforce positive behaviors.

In 1994, a study conducted in the Tualatin River Basin found that only 53 percent of respondents knew that water goes to a creek, river, wetland, or body of water after entering a storm drain or drainage ditch. After storm drains were stenciled in 1997, a follow-up study found that 73 percent of the respondents knew where water went after it entered the storm drain. Nearly 40 percent of the respondents had noticed and understood the "Dump No Waste, Drains to Stream" storm drain stencils. Twenty (21%) percent of streamside residents and fourteen percent (14%) of non-streamside residents had participated in a stream cleanup, storm drain stenciling event, or other volunteer project for water quality. When asked what individuals could do to help prevent water pollution, "keep materials out of the storm drains" was the leading response. The study found that people have changed their behavior to help water quality mostly as a result of general awareness, media reports, and seeing the damage.

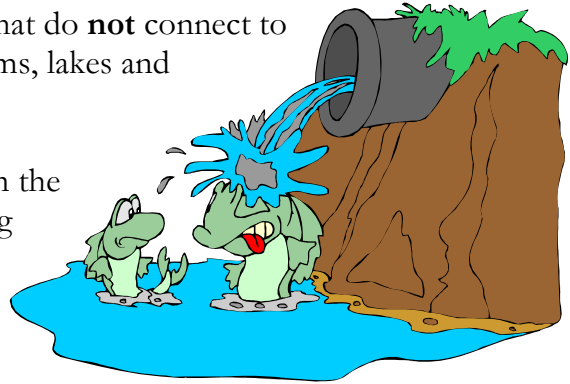
APPENDICES

STORM DRAIN STENCILING

SPONSORED BY THE CONNECTICUT RIVER WATERSHED TEAM
MASSACHUSETTS WATERSHED INITIATIVE

WHY ORGANIZE A STORM DRAIN EDUCATION ACTIVITY?

- ✓ To alert residents to the many storm drains that do **not** connect to treatment facilities and drain directly to streams, lakes and ground water
- ✓ To educate a neighborhood or community on the water quality impacts and hazards of dumping and using oil, antifreeze, fuels, paints, leaves, grass clippings, pesticides, chemicals and other waste materials into or near storm drains
- ✓ To involve the public in an educational community service project
- ✓ To meet the educational requirement in the U.S. Environmental Protection Agency mandated Stormwater Permit Program
- ✓ To help solve an illegal dumping problem in a neighborhood or community



DESCRIPTION OF STORM DRAIN ACTIVITY

- ✓ Label storm drains with messages warning citizens not to dump pollutants into the drains
- ✓ Messages are a simple phrase or logo to remind passersby that storm drains connect to local waterbodies and that dumping pollutes those waters
- ✓ Includes media campaign, storm drain education activity, and door-to-door education and outreach
- ✓ Educates citizens about the huge quantities of pollutants that come from our everyday activities through runoff and nonpoint source pollution and presents them with alternatives



HOW DO YOU ORGANIZE A STORM DRAIN STENCILING ACTIVITY?

1. **IDENTIFY ACTIVE PARTICIPANTS AND RECRUIT VOLUNTEERS (SERVICE ORGANIZATIONS, CIVIC GROUPS, YOUTH GROUPS, 4-H CLUBS, SCOUTS WATERSHED ASSOCIATIONS, AND NEIGHBORHOOD ASSOCIATIONS).**

2. **IDENTIFY NEIGHBORHOOD OR LOCATION TO CONDUCT ACTIVITY.**

3. **OBTAIN WRITTEN PERMISSION FROM THE LOCAL PUBLIC WORKS DEPARTMENT.**

4. **OBTAIN INFORMATION ON THE IMPACTS OF STORMWATER RUNOFF.**

5. **DEVELOP EDUCATIONAL MATERIALS TO EDUCATE RESIDENTS AND COMMUNITY ABOUT THE PROJECT AND STORMWATER IMPACTS.**

6. **DESIGN COMMUNITY EDUCATION CAMPAIGN (MAY INCLUDE PRESS RELEASES, SPONSORED EVENTS, RADIO AND TELEVISION PUBLIC SERVICE ANNOUNCEMENTS, EDUCATIONAL MATERIALS,**

FLIERS, AND/OR DOOR HANGERS).

7. **ASK LOCAL BUSINESSES AND CIVIC GROUPS TO DONATE SUPPLIES, PUBLICIZE THE**



EVENT, OR RECRUIT VOLUNTEERS.

8. **OBTAIN NECESSARY MATERIALS FOR PROJECT (SEE MATERIALS CHECKLIST).**

9. **PLAN TO BE SAFE. ARRANGE TO HAVE SAFETY VESTS, TRAFFIC CONES, AND, IF NECESSARY, A POLICE OFFICER OR PUBLIC WORKS EMPLOYEE TO ESCORT TEAMS.**



10. **HOLD EVENT.**

STORM DRAIN STENCILING

MATERIALS CHECKLIST

STENCIL ACTIVITY:



- ρ **AUTHORIZATION LETTER.** Each Team should have a copy of the letter.
- ρ **EDUCATIONAL PAMPHLETS/FLIERS.** To distribute to neighbors and businesses in the area that you stencil.
- ρ **STREET/NEIGHBORHOOD MAP.** Should indicate which streets and storm drains you are going to stencil.
- ρ **DATA CARDS.** To keep track of the storm drains you stencil, trash you pick up, and any obvious dumpsites you may spot. Return the data cards to the local municipality.
- ρ **CLIPBOARDS.** To hold and manage all of the above items.
- ρ **PENCIL.**
- ρ **STENCILS.** Each team should have at least two (2) stencils.
- ρ **SPRAY PAINT.** Make sure the paint meets any standards (color, type) set by the municipality that gave you permission to stencil. Read the label/instructions carefully. One can will do about 20 stencils.
- ρ **WHISK BROOM AND WIRE BRUSH.** To clean around storm drain.
- ρ **CARDBOARD.** To be used as an overspray shield.
- ρ **HAND RAGS.**
- ρ **MASKING TAPE OR BRICKS.** To hold the stencil down while you paint.
- ρ **GLOVES (Optional).**
- ρ **“WET PAINT” SIGNS.**
- ρ **TRASH BAGS.** At least two (2) bags, one for dirt and debris from around



the storm drain and one for stencils with wet paint on them.

- ρ **BAG FOR RECYCLABLES.**
- ρ **SAFETY VESTS.** Each participant should have a safety vest.
- ρ **TRAFFIC CONES.** At least 2-3 cones to warn traffic and divert cars and pedestrians away from wet stenciled messages.
- ρ **TRAFFIC FLAGS.**
- ρ **WHEELBARROW (Optional).** Great way to carry supplies from one storm drain to the next. Bright colored wheelbarrows can also alert drivers to stencilers.
- ρ **REFRESHMENTS.**
- ρ **WATER.**



TRASH CLEAN-UP:

- ρ **RUBBER OR LEATHER GLOVES.** Everyone who picks up trash should wear gloves. Be careful of sharp objects, such as glass.
- ρ **BOX OF TRASH BAGS.**
- ρ **PLASTIC BUCKET.** For sharp objects or broken glass.
- ρ **DUMPSTER OR DUMP TRUCK.**

INFORMATION BOOTH (Optional):

- ρ **TABLE.**
- ρ **DISPLAY.** Provide information about the project, pollutants, and waterbody.
- ρ **PAMPHLETS/FLIERS.**
- ρ **SAMPLE STENCIL.**
- ρ **LIST OF SPONSORS.** A great way to recognize sponsors and volunteers.



STORM DRAIN STENCILING

TIPS FOR EVENT:

CALL VOLUNTEERS BEFORE EVENT TO REMIND AND THANK THEM FOR THEIR HELP.

WEAR OLD CLOTHES AND GLOVES.

DEVELOP TEAMS OF 4-6 PEOPLE.



- ✓ 1 PERSON TO WATCH TRAFFIC
- ✓ 2 PEOPLE TO STENCIL
- ✓ 2 PEOPLE TO GO DOOR-TO-DOOR TO EDUCATE RESIDENTS
- ✓ ROTATE ROLES

EACH TEAM SHOULD HAVE AT LEAST TWO STENCILS WHICH YOU CAN ALTERNATE USING.

EXPECT IT TO TAKE 15-30 MINUTES PER STORM DRAIN, INCLUDING PREPARATION AND DRYING TIME.

BE CAREFUL NOT TO SPLATTER PAINT OR TIP OVER THE PAINT CONTAINER.

DO NOT PAINT STORM DRAINS BLOCKED BY CARS OR NEAR PRIVATE PROPERTY THAT CAN BE DAMAGED BY THE PAINT.

CHOOSE A RAIN DATE IN ADVANCED. IN ORDER FOR THE PAINT TO DRY, IT MUST BE AT LEAST 50 DEGREES FAHRENHEIT AND THE PAVEMENT MUST BE DRY.

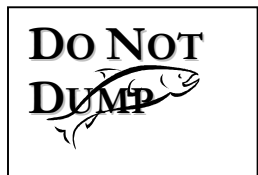
HAND OUT REFRESHMENTS DURING AND AFTER THE EVENT.

HAVE FUN!!!



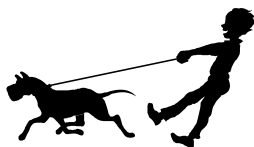
HOW TO STENCIL:

1. REMOVE DEBRIS WITH WIRE BRUSH AND BROOM.
2. LAY STENCIL ON STREET OR SIDEWALK NEXT TO STORM DRAIN.
3. TAPE THE STENCIL FIRMLY IN PLACE.
4. PLACE A CARDBOARD BARRIER AROUND STENCIL TO PREVENT OVER-SPRAY. IN ADDITION, PLACE A CARDBOARD BARRIER BETWEEN THE SPRAY AND PERSONAL PROPERTY.
5. IF USING SPRAY PAINT, SHAKE THE CAN AND HOLD IT ABOUT SIX TO EIGHT INCHES FROM THE STENCIL.
6. USE A SERIES OF SHORT BACK AND FORTH MOTIONS TO SPRAY ONE LINE AT A TIME UNTIL THE LETTERS ARE UNIFORMLY COVERED.
7. DO NOT USE TOO MUCH PAINT AS IT WILL RUN UNDERNEATH AND BLUR THE LETTERS.
8. WHEN FINISHED CAREFULLY LIFT THE STENCIL UP OFF THE STREET.
9. TAPE A WET PAINT SIGN ONTO THE STENCIL AND MOVE ONTO THE NEXT DRAIN.
10. AFTER THE PAINT IS DRY, REMOVE THE "WET PAINT" SIGNS FROM ALL THE STORM DRAINS.
11. AFTER FINISHING STENCILING FOR THE DAY, LAY THE STENCILS OUT FLAT TO DRY IN A WARM PLACE.
12. WHEN THE PAINT IS DRY, GENTLY ROLL THE MYLAR STENCILS TO CHIP OFF THE PAINT



PET WASTE

As pet waste decays in a waterbody, it uses up oxygen, sometimes releasing ammonia. Low oxygen levels and ammonia combined with warm temperatures can be detrimental to the health of fish and other aquatic life. Pet waste also contains nutrients that promote weed and algae growth (eutrophication). Eutrophic water becomes cloudy and green, making it unattractive or even prohibitive for swimming and recreation. Pet waste also carries bacteria, viruses, and parasites that can pose risks to human health, water quality and wildlife.



Many towns have “pooper scooper” laws that require pet owners to take a bag, shovel, or pooper-scooper any time they take their animal off their property. Any waste left behind by the pet must be cleaned up immediately or a fine may be imposed.

Pet waste is a major source of fecal coliform and pathogens.

Dispose of pet waste by flushing it down the toilet or burying it in the yard away from vegetable gardens and waterways.



Yard Waste



Leaves and grass clippings allow bacteria, oxygen-consuming materials, phosphorus and nitrogen to be released into local waterbodies.

HOW TO PREVENT RAINWATER POLLUTION:

Homeowners spend \$27 billion a year and more than one hour a week to maintain their lawns.

1. Do not allow soil, leaves or grass-clippings to accumulate on your driveway, sidewalk, or in the street.
2. Compost yard waste and use it to condition your soil.
3. When maintaining lawns, the grass should not be cut shorter than 2 to 3 inches in height, and mulched clippings should be left on the lawn as a natural fertilizer.

Yard wastes can clog storm drains, which causes localized flooding.

Fertilizer

Fertilizers are often applied twice a year, with spring and fall being the most popular seasons for fertilization. "Over-Fertilizers" apply fertilizer more than two times per year and they often apply too much fertilizer.

Contains large amounts of phosphorus and nitrogen that can cause algal blooms in aquatic areas. These blooms deplete the oxygen in the water and can kill a large number of fish.



HOW TO PREVENT RAINWATER POLLUTION:

1. Avoid the use of fertilizers by testing your soils every 3 to 4 years to maintain proper nutrients and use native vegetation to reduce need for fertilizers. Both of these steps will reduce the time spent on lawn maintenance and a lower maintenance lawn can increase property values by 7-14%.
2. If you need to use fertilizers, use organic fertilizers such as manure or compost and avoid applying too much.
3. Sweep, do not wash, any excess fertilizer or soil off driveways and walkways.
4. Never apply fertilizer before it rains or on a windy day.
5. Application techniques, such as tilling fertilizers into moist soil to move chemicals directly into root zone, can reduce the likelihood that the chemicals will be mobilized in rainwater.

**SLOW-RELEASE AND LOW PHOSPHATE ORGANIC
FERTILIZERS ARE LESS LIKELY TO CONTAMINATE RAINWATER.**

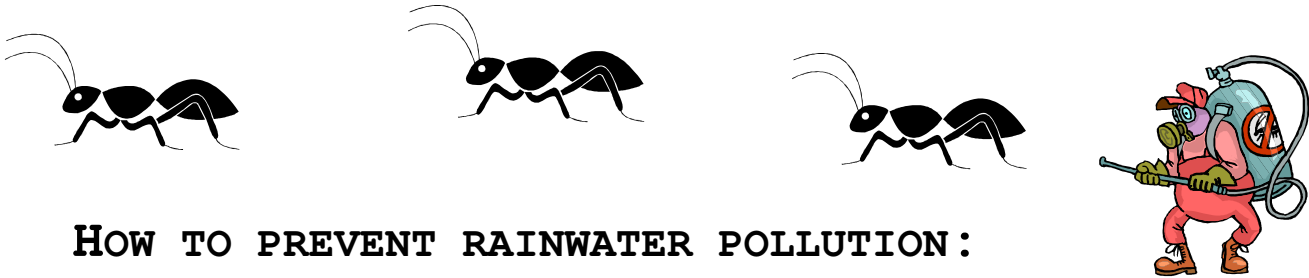
Herbicides and Pesticides

The US EPA estimates that nearly 70 million pounds of active pesticide ingredients are applied to urban lawns each year.

Contain toxic materials that are harmful to humans, animals, aquatic organisms and plants. Can contaminate drinking water supplies and threaten aquatic life. Even at very low levels, insecticides such as

It has been estimated that an average acre of well maintained urban lawn receives an annual input of five to seven pounds of pesticides.

diazinon and chlorpyrifos can be extremely harmful to aquatic life.



HOW TO PREVENT RAINWATER POLLUTION:

1. Plant grass native to your area, keep it trimmed and weed by hand.
2. Minimize the use of and avoid overapplying herbicides and pesticides.
3. Use natural alternatives whenever possible.
4. Three different non-chemical pest control practices can be used to limit the need for chemicals. Biological controls include good bugs that eat pests. Cultural controls can encompass handpicking of pests, removal of diseased plants, and other similar methods. Mechanical controls might include zappers and paper collars.
5. Carefully read the directions on the label.
6. Pesticides and herbicides should be stored with the original label intact in a dry place away from food items, cleaning products, heat or flames, children and pets

MANY RESIDENTS ARE NOT AWARE THAT THEIR LAWN CARE PROGRAM ACTUALLY USES HERBICIDES. MANY PEOPLE USE "WEED AND FEED" LAWN CARE PRODUCTS THAT CONTAIN BOTH WEED CONTROL AND FERTILIZER IN A SINGLE BAG.

HOUSEHOLD HAZARDOUS WASTE

Many household products contain toxic materials that are harmful to public health and the environment.

These include:

Cleaning Products

Oven cleaners, floor wax, furniture polish, drain cleaners and spot removers.

Car Maintenance

Motor oil, battery acid, gasoline, car wax, engine cleaner, anti-freeze, degreaser, radiator fluid, and rust preservatives.



Home Improvement Products

Paints, preservatives, strippers, brush cleaners and solvents.

Other Products Labeled

Toxic, Flammable, Corrosive, or containing lye, phenols, petroleum distillates or trichlorobenzene.

DO NOT POUR ANY HOUSEHOLD HAZARDOUS WASTE DOWN THE SINK, TOILET OR STORM DRAIN OR DISCARD WITH REGULAR TRASH.

USE NATURAL LESS TOXIC ALTERNATIVES (E.G. APPROXIMATELY A CUP OF BAKING SODA COMBINED WITH A CUP OF WHITE VINEGAR AND A CUP OF AMMONIA IN A GALLON OF WARM WATER MAKES AN EXCELLENT MULTIPURPOSE CLEANER).

PAINT

Harmful to humans, animals and the environment when improperly used or thrown out. *Paints that contain lead are especially dangerous.*

HOW TO PREVENT WATER POLLUTION:

1. Paints should be stored in a tightly sealed paint can that is turned upside down so that the paint forms a seal around the lid.
2. Paint should be kept in dry areas that will not freeze, and away from sparks or open flame.
3. Donate old paint (but not lead paint) to community groups, schools or theaters.
4. Oil-based and lead paints must be disposed at a household hazardous waste collection center.

CAR FLUIDS

More oil waste goes down storm drains each year than was spilled by the Exxon Valdez. Dumping a quart of oil down a storm drain can create an eight (8) acre oil slick and pollute 2,000,000 gallons of drinking water.

In an aquatic environment, oil reduces the oxygen level, blocks sunlight, and destroys plankton, algae and water insects. Oil can smother fish when it coats their gills and make them more susceptible to diseases. Toxic components in used motor oil, such as lead, chromium, copper, and zinc, can directly kill some plants and animals or become concentrated in plant and animal tissue. Concentrations of toxic compounds in plant and animal tissues may be consumed by humans.

Approximately 420 million oil filters are sold annually, and at least 75% are disposed of in landfills. If these used oil filters were recycled, they would yield 17.8 million gallons of oil and 161,500 tons of steel.

Anti-freeze is a highly toxic chemical, with serious oxygen-depleting characteristics, that is extremely harmful to humans, fish, wildlife and pets. Animals that live in or drink from water contaminated by anti-freeze often die.

The sweet taste of anti-freeze attracts children and pets.

HOW TO PREVENT RAINWATER POLLUTION:

1. Fix all oil and anti-freeze leaks as soon as possible. In the meantime, place a pan under any cars or trucks that have leaks and dispose of the fluid properly.
2. Put used motor oil and anti-freeze in a sturdy container and take it to a local service station to be recycled.
3. Never mix anti-freeze or motor oil with any other substance.
4. In the State of Massachusetts, you can return used motor oil to the place where you purchased it with your original receipt.



An estimated 180 million gallons of used motor oil is improperly disposed of each year.

CAR WASHING

When you wash your car, the detergent-rich water used to wash the grime off your car flows down the driveway, into the street, down the storm drain and into your local river, stream, lake or pond. This results in high loads of nutrients, metals, oil, greases and hydrocarbons in your the local waterbody.

An average driveway car wash uses 116 gallons of water.



There are over 230 million cars and light trucks in the United States and Canada and at one point they are washed -- as frequently as weekly.

SURFACTANTS DESTROY EXTERNAL MUCUS LAYERS THAT PROTECT FISH FROM BACTERIA AND PARASITES AND CAUSE

Detergents found in car wash cleaners contain surfactants that help the cleaner easily wash off with water; some of the most popular types are synthetic phenol-based surfactants. The United States Environmental Protection Agency has identified these as being possible endocrine disruptors that trick the hormone system by mimicking estrogen. In wildlife, the end result is that aquatic species are not able to reproduce, and population levels decline.

DETERGENTS LOWER THE SURFACE TENSION OF WATER. THUS, THE FISH MUCH MORE EASILY ABSORBS ORGANIC CHEMICALS, SUCH AS PESTICIDES AND PHENOLS.

“CHRONIC CAR WASHERS” WASH THEIR CARS AT LEAST ONCE A MONTH. IN THE UNITED STATES, AN ESTIMATED 25% OF THE POPULATION MAY BE CLASSIFIED AS “CHRONIC CAR WASHERS,” WHICH TRANSLATES INTO ABOUT 27 MILLION POTENTIAL CAR WASH POLLUTERS.

HOW TO PREVENT WATER POLLUTION:

1. Wash your car at a commercial car wash facility where they recycle their water or treat it prior to discharge to the sanitary sewer system.
2. Wash cars on gravel, grass, loose soil or other permeable surfaces to allow the soapy, dirty water to filter through the ground.
3. Wash your car less frequently; buy phosphorus free detergents and non-toxic cleaners.
4. Use hoses with nozzles that automatically turn off when left unattended.

DOOR HANGERS

WHEN IT RAINS, POLLUTION GOES DOWN THE STORM DRAIN.



Every time it rains, water collects litter, motor oil, anti-freeze, pet wastes, excess fertilizers and pesticides, leaves and grass clippings, and other waste materials as it runs off our roofs, yards, driveways and streets towards the storm drain.

Contrary to popular belief, most storm drains do not connect to a water treatment plant. As a result, untreated rainwater drains directly into local streams, rivers, ponds and lakes.



COULD YOU IMAGINE SWIMMING IN WATER THAT CONTAINS PET WASTES, MOTOR OIL, ANTI-FREEZE AND PESTICIDES?



*Sponsored by the Connecticut River Watershed Team
Massachusetts Watershed Initiative
Executive Office of Environmental Affairs
Commonwealth of Massachusetts*



THE CONNECTICUT RIVER WATERSHED TEAM DESIGNED THESE DOOR HANGERS TO EDUCATE RESIDENTS ABOUT THE STORM DRAIN CONNECTION TO LOCAL WATERWAYS AND TO ENCOURAGE THEM TO TAKE STEPS TO PROTECT WATER QUALITY.

WHAT YOU CAN DO TO PREVENT RAINWATER POLLUTION:



Do not pour motor oil, anti-freeze, paint, pesticides, herbicides or any other household hazardous material into or near a storm drain or discard with regular trash.

Always store hazardous materials with their label intact and away from food items, cleaning products, heat or flame, children and pets.

Clean up spilled brake fluid, oil, grease and anti-freeze with kitty litter or other absorbent material and dispose of properly.

In the Commonwealth of Massachusetts, you can return used motor oil to the place where you purchased it with your original receipt.



Donate old paint to community groups or dispose of at a Household Hazardous Waste Collection Center.



Minimize the use of fertilizers, herbicides and pesticides. Never apply on a windy day or right before it rains.

Do not allow leaves or grass clippings to accumulate on your driveway, sidewalk or in the street.

Dispose of pet waste by burying it or flushing it down the toilet.

Wash your car on gravel, grass or other permeable surfaces that allow soapy water to be filtered into the ground.



Put all litter into trash receptacles. Never throw litter down storm drains.

For more information about hazardous waste disposal, pollutants or storm drains, contact:

Place Contact
Information
Label Here.

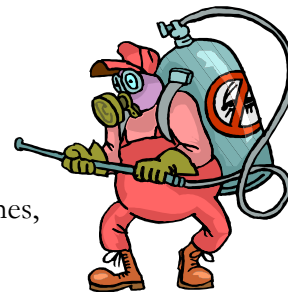
Fertilizers

- Contain large amounts of phosphorus and nitrogen, which can cause algal blooms in aquatic areas. These blooms deplete oxygen in the water and can kill a large number of fish.
- ✓ Avoid the use of fertilizers.
- ✓ Use native vegetation to reduce maintenance. A lower maintenance lawn can increase property values by 7-14%.
- ✓ Test soil every 3 to 4 years to maintain proper nutrients.
- ✓ If you need to use fertilizers, use organic fertilizers such as manure or compost.
- ✓ If you use fertilizers, Read the Label Carefully and Do Not Over-Apply the fertilizer.
- ✓ Sweep, DO NOT WASH, any excess fertilizer or soil off driveways and walkways.
- ✓ NEVER apply before it rains or on a windy day.



Pesticides & Herbicides

- Contains toxic materials that are harmful to humans, animals, aquatic organisms and plants.
- ✓ Carefully follow the directions on the label.
- ✓ Minimize the use of herbicides and pesticides.
- ✓ Use natural alternatives whenever possible.
- ✓ Plant grass native to your area, keep it trimmed and weed by hand.
- ✓ Pesticides and Herbicides should be stored with the original label in a dry place away from food items, cleaning products, heat or flames, children and pets.



Pet Waste



- Carries bacteria, viruses, and parasites that poses a risk to human health and threatens wildlife.
- Releases both bacteria and oxygen-consuming materials into our local waterbodies.
- ✓ Dispose of pet waste by flushing it down the toilet or burying it in the yard away from vegetable gardens and waterways.
- ✓ Remember many towns enforce “Pooper-Scooper” Ordinances.

WHEN IT RAINS, POLLUTION GOES DOWN THE STORM DRAIN.

Did you know... that every time it rains, water collects litter, motor oil, antifreeze, pet wastes, excess fertilizers and pesticides, leaves and grass clippings, and other waste materials as it runs off our roofs, lawns, driveways and streets towards the storm drain.

Contrary to popular belief, most storm drains do not connect to a water treatment facility. As a result, untreated rain water drains directly to our local streams, ponds, lakes and rivers via the storm drain system.



Could you imagine taking swimming in polluted water that contains pet wastes, motor oil, antifreeze, and pesticides?



Nonpoint Source Pollution

The pollutants rain washes off roofs, lawns and road surfaces are known as nonpoint source pollution. Nonpoint source pollution comes from a diffuse, wide area and is not tied to a specific origin. Though the effect on the environment is not immediately apparent, the cumulative impacts on local water bodies can significantly degrade fish habitat, drinking water supplies, and recreational opportunities. Non-Point Source Pollution has become the #1 threat to our local waterbodies.

Motor Oil



- Damages and/or kills underwater vegetation and aquatic life.
- Just one quart of oil can contaminate two million gallons of drinking water or create an 8-acre oil slick.
- More oil wastes goes down storm drains each year than was spilled by the Exxon Valdez.

- ✓ NEVER pour used motor oil down the storm drain.
- ✓ Put used motor oil in a sturdy container and to take it to a local service station to be recycled.
- ✓ In the State of Massachusetts, you can return used motor oil to the place where you purchased it with your original receipt.

Antifreeze

- **Highly Toxic Chemical** that has serious oxygen-depleting characteristics.
- **Extremely Harmful** to humans, fish, birds and pets.
- Animals that live in or drink from contaminated water may die.
- Sweet taste attracts children and pets.



- ✓ Take your used antifreeze to a local service station for recycling.
- ✓ DO NOT mix your antifreeze with any other substance.

Car-Washing

- When you wash your car, the detergent-rich water used to wash the grime off your car flows down the street and into the storm drain. This results in high loads of nutrients, metals, and hydrocarbons in our local water bodies.



- ✓ Wash your car at a commercial car wash facility where they recycle their water or treat it prior to discharge to the sanitary sewer system.
- ✓ Wash your car on gravel, grass or other permeable surfaces that allow the soapy water to be filtered out.
- ✓ Use biodegradable soaps.
- ✓ Use hoses with nozzles that automatically turn off when left unattended.

Yard Waste

- Leaves and grass clippings allow bacteria, oxygen-consuming materials, phosphorus and nitrogen to be released into our local waterbodies.
- Yard wastes can clog storm drains, which can result in localized flooding.



- ✓ Do not allow soil, leaves, or grass clippings to accumulate on your driveway, sidewalk, or on the street.
- ✓ Compost yard waste and use it to condition your soil.

Street Litter

- Includes plastic bags, cups, wrappers, fast-food bags, cans, bottles, general trash.
- Wildlife can mistake items for food and become entangled in the litter.
- Source of bacteria that poses threat to humans and wildlife.
- Contributes to visual pollution.



- ✓ Put all litter into trash receptacles.
- ✓ Never throw litter down storm drains.
- ✓ Recycle as much as possible.
- ✓ **If you see litter, pick it up so it does not get washed or blown into a storm drain, gutter, or local stream.**

Household Hazardous Waste

- Many household products contain toxic materials that are harmful to public health and the environment. These include:

Cleaning Products:

Oven cleaners, floor wax, furniture polish, drain cleaners and spot removers.

Car Maintenance:

Motor oil, battery acid, gasoline, car wax, engine cleaner, antifreeze, degreaser, radiator flush and rust preventatives.

Home Improvement Products:

Paints, preservatives, strippers, brush cleaners and solvents.

Other Products Labeled:

Toxic, Flammable, Corrosive, or containing lye, phenols, petroleum distillates or trichlorobenzene.

- ✓ DO NOT pour any household hazardous waste down the drain or toilet or discard with regular trash.
- ✓ Use natural or less toxic alternatives (i.e. approximately a cup of baking soda combined with a cup of white vinegar and a cup of ammonia in a gallon of warm water makes an excellent multipurpose cleaner).
- ✓ To learn how to properly dispose of hazardous waste materials, contact:



Paint

- Harmful to humans, animals & the environment when improperly used or thrown out. *Paints containing lead are especially dangerous.*



- ✓ Paints should be stored in a tightly sealed paint can that is turned upside down so that the paint forms a seal around the lid.
- ✓ Donate old paint (but NOT lead paint) to community groups, schools or theaters.
- ✓ Oil-based and lead paints must be disposed at a household hazardous waste collection center.

Sample Newspaper Clipping

B4 DAILY HAMPSHIRE GAZETTE

EASTHAMPTON

Volunteer pond cleanup to ease storm-drain pollution

By DAN CROWLEY
Staff Writer

EASTHAMPTON — Rubber Thread Pond, one of the city's most polluted water bodies, will be the focus of a daylong educational outreach project on Saturday.

Volunteers will clean up trash and stencil "Dump No Waste, Drains to Pond" messages near approximately 125 storm-drain inlets around the pond.

Boy Scout Levi Tiffany, 16, of 190 Park St., has organized the event, called Rubber Thread Pond Day, as part of his Eagle project. Tiffany is a member of Boy Scout Troop 205.

Rubber Thread Pond's upper half near Williston Northampton School is in relatively good condition. But its lower section is in very poor shape because of extensive sediment and nutrient discharges into the water, according to an environmental assessment done by MacLeod-Monahan LLC and LP Consultants, of Holyoke last year.

"The Williston-half is kept much nicer," said Tiffany, who will set up an informational booth near the gazebo of Rubber Thread Pond on Saturday from 9 a.m. to 3 p.m. "It's a good example of how good maintenance can benefit the pond."

In addition to stenciling messages at storm drains on Park and Garfield streets as well as Ward, Bryan, Taft and Williston avenues, volunteers will go door-to-door handing out educational fliers. The flier contains information on lawn and garden care, water conservation, pollution and hazardous-waste management.

Tiffany said the storm-drain messages should last for about five years.

"Anything you do to your land or your yard directly affects the pond," said Tiffany, who contrasted a dirtied Rubber Thread Pond with a visibly cleaner Nashawannuck Pond nearby. "I always wondered why the ponds so close could look so different."

Tiffany noted that over 80 percent of the sediments and nutrients come from storm-water-drains

"Anything you do to your land or your yard directly affects the pond. I always wondered why the ponds so close could look so different."

Boy Scout Levi Tiffany

outfalls, which in turn enter local ponds and waters without going to a treatment plant.

The result is that pollutants such as lawn-care chemicals, grass clippings, litter, pet wastes and auto products like used oil and antifreeze find their way into waterways.

On Rubber Thread Pond, such runoff has led to excessive algae growth and other vegetation. What's more, the vegetation on the water's surface attracts wild waterfowl like ducks and geese, which leave their waste in the pond.

"(People) assume anything that goes down a storm drain goes to a treatment plant," said Tiffany, whose project is part of a \$10,000 grant received by the city last year through the state Department of Environmental Management's Lakes and Ponds Program.

Public education and outreach is one requirement of the grant.

For its part, the city has begun its annual street-sweeping. The city recently acquired a piece of equipment that allows it to clean catch-basins more regularly, said City Planner Stuart Beckley.

In addition, the city is planning next month to install two new culverts to increase the flow of water from Rubber Thread to Nashawannuck Pond to help decrease sediment and nutrient deposits. "The intent is that the flow will stop the algae from forming," Beckley said.

Tiffany, who has been working on his Eagle project since December, said he welcomes all to stop by his booth on Saturday to learn more about specific problems relating to Rubber Thread Pond.

A rain date for the event has been scheduled Saturday, May 25 from 9 a.m. to 3 p.m.



Volunteers stenciled storm drain inlets around Rubber Thread Pond with a, "DUMP NO WASTE. DRAINS TO PONDS," message to remind residents not to dump hazardous materials into or near storm drains.

**A PRESS
RELEASE
ISSUED FOR
THE DAY OF THE
EVENT OR TO
SOLICIT
VOLUNTEERS
CAN DRAW TV
AND/OR
NEWSPAPER
COVERAGE.
PRESS
COVERAGE
ALLOWS YOU TO
REACH A
LARGER AND**

SAMPLE PRESS RELEASE

{CITY OR ORGANIZATION LETTERHEAD}

FOR IMMEDIATE RELEASE

**A PRESS
RELEASE
ISSUED FOR
THE DAY OF THE
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SOLICIT
VOLUNTEERS
CAN DRAW TV
AND/OR
NEWSPAPER
COVERAGE.
PRESS
COVERAGE
ALLOWS YOU TO
REACH A
LARGER AND**

VOLUNTEER TO HELP PROTECT WATER QUALITY

On {INSERT DATE}, {NAME OF ORGANIZATION} will be sponsoring a storm drain stenciling event around {WATERWAY}. Volunteers are needed to stencil storm drain inlets with a "Do Not Dump" message. These stencil messages remind residents and businesses not to dump hazardous materials into or near storm drains.

Contrary to popular belief, many storm drains on our neighborhood streets do not connect to a water treatment plant. Many storm drains connect directly to our local lakes, ponds, streams and rivers. Every time it rains, water collects remnants of our everyday activities as it runs off our roofs, lawns, lawns, driveways, and streets. Litter, motor oil, anti-freeze, pet wastes, excess fertilizers and pesticides, and leaves and grass clippings are just some of the waste materials rainwater collects as it heads towards the storm drain. Pollutants carried by rainwater contaminate fish habitat, swimming areas, and drinking water supplies.

According to {NAME AND TITLE OF EVENT ORGANIZER}, people unknowingly contribute to water pollution everyday. "A simple act, such as washing your car in the driveway, fertilizing the lawn, or walking your dog could substantially damage water quality," {SHE/HE} said. "However, there are many steps people can take to reduce the amount of pollution that reaches our waterways."

Things you can do to help prevent water pollution include:

- Never pour motor oil, anti-freeze, paint, pesticides, herbicides or any other household hazardous material into or near a storm drain or discard with regular trash.
- Clean up spilled brake fluid, oil, grease and anti-freeze with kitty litter or other absorbent material and dispose of properly.
- In the Commonwealth of Massachusetts, return your used motor oil to the place where you purchased it with your original receipt.
- Donate old paint to community groups or dispose of at a Household Hazardous Waste Collection Center.
- Minimize the use of fertilizers, herbicides and pesticides. Never apply on a windy day or right before it rains.
- Do not allow leaves or grass clippings to accumulate on your driveway, sidewalk or in the street.

- Dispose of pet waste by burying it or flushing it down the toilet.
- Wash your car on gravel, grass or other permeable surfaces that allow soapy water to be filtered into the ground.
- Put all litter into trash receptacles. Never throw litter down storm drains.
- Volunteer to mark storm drains with a “Do Not Dump” message.

If you would like to volunteer or would like more information about storm drain stenciling, contact {EVENT ORGANIZER} at {PHONE NUMBER}.

STORM DRAIN DATA CARD

Town _____	Name of Organization _____
Street _____	CONTACT PERSON _____
Number of Storm Drains Stenciled _____	MAILING ADDRESS _____ _____ _____
Number of Participants _____	DAYTIME PHONE _____
Date(s) Storm Drains Stenciled _____	

Observations

Please mark the number of items found within five feet of each side of the storm drains you stencil by making check marks in the area below:

NON-POINT SOURCE POLLUTANTS

GRASS CLIPPINGS _____
LEAVES _____
MOTOR OIL _____
PAINT _____
PET WASTES _____
STREET LITTER/ PLASTICS, INCLUDING:
 BEVERAGE BOTTLES _____
 BEVERAGE CANS _____
 CAPS/LIDS _____
 CIGARETTE BUTTS _____
 CLOTHING/SCRAPS _____
 FAST FOOD WRAPPERS _____
 FOAM PLASTICS PIECES _____
 NEWSPAPER/MAGAZINES _____
 PAPER BAGS _____
 PLASTIC BAGS/WRAPPERS _____
 PLASTIC OR FOAM CUPS _____
 PLASTIC PIECES _____
 SIX-PACK HOLDERS _____
 STRAWS _____
OTHER _____

LAND USE

Please indicate the number of storm drains marked in the following areas:

RESIDENTIAL AREA _____
SHOPPING CENTER/PARKING LOT _____
GOLF COURSE _____
BUSINESS DISTRICT _____
SERVICE STATION _____
FARMLAND _____
OTHER (PLEASE INDICATE)

STORM DRAIN LOCATION

Please indicate the location of the storm drains you stencil below and on the street map.

EXAMPLE:

STREET: Hymann Street **NUMBER OF STORM DRAINS STENCILED** 8.

BETWEEN Rose Avenue **&** Wilbur Lane
STREET NAME STREET NAME

STREET: _____ **NUMBER OF STORM DRAINS STENCILED** _____.

BETWEEN _____ **&** _____
STREET NAME STREET NAME

STREET: _____ **NUMBER OF STORM DRAINS STENCILED** _____.

BETWEEN _____ **&** _____
STREET NAME STREET NAME

STREET: _____ **NUMBER OF STORM DRAINS STENCILED** _____.

BETWEEN _____ **&** _____
STREET NAME STREET NAME

STREET: _____ **NUMBER OF STORM DRAINS STENCILED** _____.

BETWEEN _____ **&** _____
STREET NAME STREET NAME

TOTAL NUMBER OF STORM DRAINS STENCILED: _____.

*Insert
Your Logo
Here*

Certificate of Appreciation

(Recipient's Name Here)

Your efforts to protect the waters of
(Insert Stream Name Here), by marking storm drains with a
“Do Not Dump, Drains To Stream” message,
are greatly appreciated.

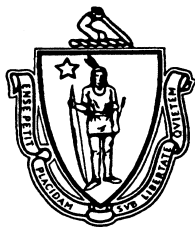
(Insert Name of Organization)

Date

Do Not Dump.



Drains to Stream.



The Commonwealth of Massachusetts
Executive Office of Environmental Affairs

STORM DRAIN STENCILING APPLICATION

APPLICANT: _____

ORGANIZATION: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

PHONE NUMBER: _____ E-MAIL: _____

1. DESCRIBE THE PURPOSE AND BENEFIT OF THE PROPOSED PROJECT.

2. DESCRIBE STENCIL GROUP. (INCLUDE NUMBER OF PARTICIPANTS EXPECTED, AGES OF PARTICIPANTS, AND HOW THEIR WORK WILL BE SUPERVISED.)

3. LIST STREETS AND NEIGHBORHOODS YOUR GROUP PLANS TO STENCIL. (PLEASE ATTACH A MAP THAT INDICATES THE AREA YOU PLAN TO STENCIL.)

4. DAY & TIME OF EVENT: _____

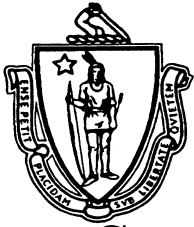
RAIN DATE: _____

5. WHAT TYPES OF EDUCATIONAL/OUTREACH MATERIALS WILL BE DISTRIBUTED? HOW WILL THE MATERIALS BE DISTRIBUTED AND TO WHOM?

6. DESCRIBE THE MESSAGE/LOGO INCLUDED IN THE STENCIL. WHAT LANGUAGES WILL THE STENCIL MESSAGE BE IN? (PLEASE ATTACH AN ACCURATE DRAWING OF THE STENCILED MESSAGE. INDICATE THE SIZE AND DIMENSIONS OF THE LETTERS AND IMAGE.)

7. DESCRIBE HOW DRAINS WILL BE PAINTED. (INCLUDE TYPE OF PAINT, METHOD OF APPLICATION (SPRAY, ROLLER, OR BRUSH), WHERE THE MESSAGE WILL BE PLACED RELATIVE TO THE STORM DRAIN, HOW THE SURFACE WILL BE CLEANED PRIOR TO APPLYING STENCIL, AND HOW OVERSPRAY WILL BE PREVENTED.)

PLEASE SUBMIT THIS APPLICATION (#) WEEKS IN ADVANCE OF THE SCHEDULED STENCILING DATE TO ALLOW ADEQUATE TIME FOR MUNICIPAL STAFF TO REVIEW THE REQUEST.



The Commonwealth of Massachusetts
Executive Office of Environmental Affairs

STORM DRAIN STENCILING/MARKING GUIDELINES

PAINT/STENCIL REQUIREMENTS

1. **ALL STENCILS SHOULD BE PAINTED USING WHITE TRAFFIC ZONE LATEX SPRAY PAINT WITH AN INVERTED TIP.**
2. **DUE TO SCHEDULED STREET PAVING AND/OR SAFETY CONCERNS YOU MAY ONLY STENCIL THE FOLLOWING STREETS/DRAINS: (LIST HERE.)**
3. **ALL STENCIL MESSAGES MUST BE PLACED IN FRONT OF THE DRAIN WITH THE MESSAGE FACING TOWARDS THE CENTER OF THE STREET.**
4. **STENCIL DIMENSIONS MAY NOT EXCEED**
_____.

PROTECT PUBLIC AND PRIVATE PROPERTY

1. **DO NOT STENCIL NEAR PARKED CARS OR OTHER PUBLIC OR PRIVATE PROPERTY THAT MAY BE DAMAGED BY THE PAINT.**
2. **PLACE A PIECE OF THREE-SIDED CARDBOARD AROUND THE STENCIL WHEN YOU SPRAY PAINT.**

3. **PLACE A “WET PAINT” SIGN NEAR STENCILED MESSAGES UNTIL THEY ARE COMPLETELY DRY.** IF YOU HAVE SEVERAL TRAFFIC CONES, PLACE CONES STRATEGICALLY AROUND THE STENCILED MESSAGES TO DIVERT CARS AND PEDESTRIANS AWAY FROM WET PAINT.

VOLUNTEER SAFETY

1. **Do not paint on busy streets.** ONLY PAINT MESSAGES ON STREETS WHERE PEDESTRIANS CAN WALK. CONSIDER THE DAY AND TIME YOU WILL BE STENCILING. IN DOWNTOWN AREAS, TRAFFIC WILL BE HEAVIEST DURING WEEKDAY RUSH HOURS -- (7-9 AM) AND (4-6PM).
2. **Stencilers must be at least ten (10) years old.** HIGHER TRAFFIC AREAS AND LOCATION OF STENCIL AREA MAY DICTATE AN OLDER AGE LIMIT.
3. **There must be one adult for every four children and at least one adult per stencil Group.**
4. **Paint in groups of three (3) or more.**
5. **One person should be assigned to watch traffic and warn other participants about potential danger.**
6. **All participants must wear orange or neon safety vests.** TRAFFIC CONES, HANDHELD FLAGS, PORTABLE ROOF-MOUNTED FLASHING LIGHTS OR OTHER APPROPRIATE SAFETY EQUIPMENT IS REQUIRED WHERE AVAILABLE.
7. **Police escorts may be necessary.** PLEASE NOTIFY THE LOCAL POLICE DEPARTMENT WELL IN ADVANCED OF THE SCHEDULED STENCIL EVENT.

LIABILITY WAIVER

- 1. Each participant and parent or legal Guardian, if participant is a minor, must sign a liability waiver form before participating in the event.** BY SIGNING THE LIABILITY WAIVER, YOU VERIFY THAT YOU UNDERSTAND THE NATURE OF THE WORK, AGREE TO FOLLOW ALL THE SAFETY GUIDELINES, AND WILL NOT HOLD THE MUNICIPALITY RESPONSIBLE FOR INJURIES OR DAMAGES YOU MAY CAUSE OR SUFFER.

WAIVER OF LIABILITY¹

I, the undersigned, being of lawful age or the parent or legal guardian of the volunteer involved in the storm drain (marking/stenciling) project sponsored by (Municipality/Organization), in consideration of my or another's voluntary participation in the (marking/stenciling) project, I hereby, for myself and any volunteer for who I am parent or legal guardian, agree to release, discharge, hold harmless, and forever acquit the (Municipality and/or Organization) from any and all actions, causes of action, claims or liabilities whatsoever, known or unknown now existing or which may arise in the future, on account of or in any way related to or arising out of participation in the (marking/stenciling) project.²

Further, I assume all liability for any non-participants who accompany me.

PARTICIPANT'S NAME (please print) _____

PARTICIPANT'S SIGNATURE _____

PARTICIPANT'S AGE (if a minor) _____

SIGNATURE OF PARTICIPANT'S PARENT OR LEGAL GUARDIAN (if a minor)

DATE _____

IN ORDER TO PARTICIPATE, YOU MUST SIGN THE WAIVER.

¹ FOR DEMONSTRATION PURPOSES ONLY. To help protect your municipality against liability, establish safety guidelines that will prevent injury to volunteers and damage to property, have participants sign a waiver of liability, and have the municipality's lawyer review the language and program. Liability waivers should verify that participants understand the nature of the work, agree to follow the safety guidelines, and will not hold the municipality liable for injury to themselves or damage they may cause.

² Developed in reference to "Sample Liability Waiver." Earthwater-Stencils, Ltd. Rochester, WA. 1997.; Storm Drain Stenciling: A Manual For Communities. Texas Natural Resources Conservation Commission. Austin, TX. April 1996.; and Storm Drain Stenciling in North Carolina: A Local Government's Guide to Storm Drain Stenciling. North Carolina Sea Grant. Raleigh, NC.

STORM DRAIN STENCILING PROGRAM NATIONAL PROFILES

STORMWATER EDUCATION AND STORM DRAIN MARKING CAMPAIGN

Youth Environmental Program, Inc.

Location: Miami-Dade County, Florida

Address: 1313 Ponce de Leon Blvd., Suite 301, Coral Gables, FL 33134

Telephone: 305-672-7675

Fax: 305-443-3033

Email: S701@aol.com

Miami-Dade County Department of Environmental Resources Management (DERM) compiled an evaluation of their storm drain stenciling program. DERM created a 10, 15, and 30 second public service announcement to be aired on the Miami-Dade County Channel and distributed to interested parties. In addition, DERM printed and distributed 20,000 posters entitled "Make the Connection." Target areas for community education and storm drain marking were identified and mapped. The maps were then distributed to participating organizations.

In 1997, Youth Environmental Programs, Inc. (YEP) was awarded funding (\$19,556.00) from the Miami-Dade County's Environmental Enhancement Grant Program to initiate a pilot project for the county-wide stormwater education and storm drain marking program. YEP agreed to mark pre-selected storm drains, conduct educational programs in local schools, coordinate litter cleanup campaigns in school yards, parks and beaches, participate in community events, and create and distribute educational materials on storm water issues to students and residents.

YEP evaluated three different storm drain marking methods, including metal placards, das curb markers, and stencils. A logo of an angelfish and the slogan "Don't Pollute! Drains to Miami River" were used on the marking materials. A total of 206 storm drains were marked over a six day period.

The group found that the metal placards (5" X 10") were too large to be used on the face of the drain. Originally they were to be applied by an adhesive to the sidewalk section of the drain. However, the public works department deemed them a safety hazard and no metal marker were applied.

Stencils, with 2 1/2" lettering and 3" angelfish logo, were easily applied to the sidewalk section of the drains. It took about 5-8 minutes per drain. Each 15-ounce can of spray paint stenciled approximately 10-15 drains. If the paint was applied correctly, the logo and slogan were highly visible. If too much or too little paint was applied, the stencil appeared smudged or faded, respectively. Volunteers found this marking method to be easy, quick, and effective.

Curb Markers were applied to the face of the drains using an adhesive. Drain preparation, applying adhesive to back of marker and adhering marker to face of the sidewalk took approximately 10 minutes per drain. Since the curb markers are not reusable, the volunteers had to carry an adequate supply with them along the marking route. Drains in poor condition or that had no flat surface did not have markers applied to them. Approximately 270 markers were applied. Marking had been completed on August 8, 1998. As of December 28, 1998, 51 markers (19% of the markers) had fallen off the face of the drain. In addition, seven other markers had been damaged by tire marks or the duracast covering had come off and the

markers were white on the top and sides. Due to the small size of the markers, their visibility is difficult. While volunteers liked the overall appearance of the markers, they found their application, durability, and visibility to be inferior to the stenciling method.

The stenciling method was cost-effective in comparison to the curb markers. Including the cost of supplies, stenciling cost approximately \$5.34 per drain. Using the curb markers and adhesive cost \$10.69 per drain

WATER ACTION VOLUNTEERS

Location: Wisconsin

Contact: Kris Stepenuck, Coordinator

Address: CALS 216 Ag Hall 1450 Linden Dr. Madison, WI 53706-1562

Telephone: (608) 265-3887

E-mail: kris.stepenuck@ces.uwex.edu

Web Site: www.clean-water.uwex.edu/way

The University of Wisconsin (UW) Extension Service and the State Department of Natural Resources co-sponsor a program called Water Action Volunteers. The program sets up a network of local contacts for stencil and supply distribution and provides educational publications to community groups. When a local contact is identified, they are sent stencils and directions of where to direct groups for more information about planning a project.

Funds from an EPA 319 grant helped to purchase the stencils, while another grant covered the cost to print door hanger cards about the storm drain stenciling program and why it is important. Other fact sheets that explain the program, the route that wastes travel to and from storm drains, and about things residents can do to help stop the flow of non-point source runoff pollution are distributed through the UW -- printing services. All these publications are made free to Wisconsin residents.

The program established a network known as Watershed Education Resource Centers (WERC) that loan supplies, such as paints, safety vests, dustpans and brushes, to community groups like a library would lend books. When a group does not have a local supplier, they often borrow supplies from the city or county public works department. Volunteers provide the labor and oftentimes include school groups, scout groups, or lakes and watershed associations.

Since the program acts as a clearinghouse for many local contacts, large orders of stencils are placed at one time. Generally, each stencil costs about \$10.00 each and can be reused 10-20 times before the paint builds up and it needs to be thrown away. The door hangers generally cost about a \$1000.00 to print about 15,000. The Water Action Volunteer program covers all these costs. The only cost to the local community is for the purchase of paint, which only costs a few dollars per can. If safety vests cannot be borrowed from WERC or the local public works department, they can be purchased for about \$5.00 each and reused for years after.

NATIONAL POLLUTION PREVENTION WEEK

Location: City of Superior, Wisconsin

Organization: City of Superior Wastewater Treatment Plant

Contact: Bonita Martin, Research Assistant -- Stormwater

Telephone: 715-394-0392 ext 140

E-mail: MartinB@ci.superior.wi.us

The City of Superior Wastewater Division, with the assistance of the University of Wisconsin and Department of Natural Resources, coordinated storm drain stenciling projects with fifth and sixth grade classes from the public elementary schools. Numerous parents, teacher aides, assistants and other school staff contributed to planning the project.

The City of Superior Street Department provided orange safety cones and "Road Work Ahead" signs. Wastewater staff developed maps of the areas around the schools and highlighted known or suspected storm drain inlets. The Water Action Volunteers Program provided stencils and educational materials. In addition, teachers were provided a packet of educational materials to present to their classes prior to the stenciling event. These materials ensured that students understood the reasons behind the stenciling activity.

Teachers recruited parent volunteers to supervise students the day of the event. Teachers divided teams up ahead of time. The goal was to have teams of at least one adult and four children. Though some teams had three to six students and one to two adults.

The day of the event, the students and adult volunteers met with the wastewater staff to review the maps and watch a demonstration of the stenciling process. After the demonstration, a staff member, in a van with extra supplies, patrolled the area to check on the teams and take pictures. In addition, a City of Superior truck circulated the area with extra supplies. The truck was also used to create a safe working area on busy street corners by blocking traffic and using flashing hazard lights.

Each stencil team received a five-gallon bucket loaded with the following supplies:

- A plastic stencil
- Duct tape
- A wire brush
- A whisk broom
- 2 trash bags
- Disposable latex gloves, one pair per person
- Paint, 3 to 4 cans, mixed colors, highway marking quality, environmentally friendly
- Orange safety vests, one per person
- Informational door hangers, in a plastic zip-lock bag
- A handful of paper towels
- Moist towelettes

Twenty-two buckets/kits were assembled. Each bucket/kit cost about \$45.00. Approximately \$27.00 represented one-time or occasional expenses, such as buckets, vests, brushes, etc..

Approximately \$18.00 represented re-supply expenses, such as paint, gloves, and garbage bags.

In addition to the buckets, each team was supplied two orange highway safety cones. One additional cost incurred was \$100.00 for a bus to transport one elementary school to and from the stencil location.

Press releases were sent to various news organizations and both television and newspaper reporters covered many of the events.

After the event, each school received a certificate of appreciation, an 8" X 10" group photo, printouts of the teams stenciling, a CD with photo files, and DUMP NO WASTE buttons.

In total, approximately 324 students cleaned and labeled 637 storm drain inlets.

Project Details That Worked Well, and Recommendations:

Permission Waiver Slips, should emphasize:

Participants should wear appropriate clothing, including shoes, and organizers are not responsible for paint on clothes.

All efforts are made to ensure safety of participants, but ultimately responsibility for safety lies with the participants.

Timing:

Allow about two hours per event, including demonstration time.

Orientation and Demonstrations, particularly for first-time participants:

Emphasize Safety – Participants must follow instructions of the leaders, stay together, cross streets as a group, wear vests at all times, set up and stay inside cones, and always have at least one person watching traffic.

Explain maps and how to identify inlets.

Remind Participants that gloves are provided; sweep debris away from inlet, not into them; surface must be clean or the stencil will not last.

Duct tape stencil in place.

Remind team members to be aware of the wind and to stay out of the way of drifting paint.

Shake spray paint for at least a minute prior to spraying.

Aim the can and hold it vertical about 8 inches away from stencil. Use sweeping motion to cover area with light coats. Let it dry for several minutes before lifting the stencil.

Designate a meeting or pick-up area.

Mapping/Routes:

Plan for 6-10 inlets per team.

Make the routes open ended, if possible, so if a team finishes up early, they can continue to mark more storm drains.

Provide coordinators and drivers with map showing all routes.

On each map, include the time to return, cell phone numbers, contact numbers for the Department of Public Works or other coordinating department, compass directions, key landmarks, and other information for orientation.

Avoid fast moving, heavy traffic streets.

Provide a clipboard with a pen for each team leader.

Miscellaneous:

Consider the use of walkie-talkies to help coordinate teams.

STORM DRAIN STENCILING IN THE CONNECTICUT RIVER WATERSHED



Rubber Thread Pond Day

Location: Easthampton, Massachusetts

Organizer: Levi Tiffany, Boy Scout Troop 205

Message: “Do Not Dump. Drains to Ponds.”

Logo: Fish

In the summer of 2001, the City of Easthampton received a grant to replace a culvert between Rubber Thread Pond and Nashawannuck Pond. Rubber Thread Pond had been inundated with excessive aquatic vegetation, trash, and sediments. Due to the poor condition of the pond, the grant required the city to conduct public outreach activities and to sponsor a pond cleanup.

In order to fulfill the grant requirements, the City of Easthampton partnered with Boy Scout Levi Tiffany, from Troop 205. As part of his Eagle Scout Project, Levi organized a storm drain stenciling event and pond cleanup.

Levi wrote letters to the Mayor, Police Department and the Department of Public Works to notify and request permission to conduct the stencil event. After reviewing Levi’s plans, the City Engineer provided maps of the storm drains, advised what streets to avoid stenciling due to future street paving, and suggested that solvent-based paint be used instead of the latex paint originally proposed.

Levi created four different fliers that included information on lawn and garden care, household hazardous waste, water conservation, and nonpoint source pollution. In addition, he sent fliers and a press release to the local newspaper.

Levi ordered custom stencils from Earthwater Stencils in Rochester, Washington. Local businesses donated money and supplies to cover the cost of the stencils, fliers and other necessary materials. In addition, one local restaurant donated bottled water with a special label that advertised Rubber Thread Pond Day and the storm drain stenciling event. In total, Levi raised \$340.00 + supplies.



The DPW supplied safety vests and cones. In addition, the Connecticut River Watershed Team provided an interactive watershed model — known as an Enviroscape — to show how nonpoint source pollution pollutes local waterbodies. The Enviroscape and educational fliers were set-up at an information booth in front of the pond where residents and passersby could stop and ask questions about the project and how to protect water quality.

A total of 76 storm drains were stenciled, 15 bags of trash and 3 tires were removed from the pond, and 264 informational packets were distributed. Overall, Levi’s project successfully fulfilled the grant requirements for the City of Easthampton and encouraged local residents to take steps to improve the water quality of Rubber Thread Pond.



STORM DRAIN STENCILING PROGRAMS IN MASSACHUSETTS

CITY OF SPRINGFIELD PLANNING DEPARTMENT

Location: Springfield, MA

Contact: Katie Galluzzo

Address: 36 Court Street, Springfield, MA 01103

Telephone: (413) 787-6020

Fax #: (413) 787-6524

E-mail: galluzzo.javanet@rcn.com

Web Site: www.springfieldplanning.org

In 2001, the City of Springfield began a storm drain education campaign in preparation for Phase II Storm Water Regulation requirements. The city relies entirely on volunteers to mark storm drains. They coordinate with local neighborhood associations, local schools and science museum.

The City hired an intern to create a "Storm Watershed" map that indicates where storm water will flow from the each of the different streets in Springfield. The intern used maps from the Department of Public Works to determine where the storm drains flowed. The map will be used to educate businesses and residents about their "storm watershed" and raise awareness about storm water impacts. The program goal for the first year is to make every resident aware that they are part of a "storm watershed." The maps will be posted around town and placed on kiosks next to each of the ponds in the City. In order to reach a more diverse audience, the kiosks will be done in multiple languages.

A local sign company was hired to create and produce plastic storm drain markers. The program intends to produce markers for each of the storm watersheds identified in the "Storm Watershed" map. The markers cost \$1.40 each and are produced by Whitoco Signs in Springfield.

A website is being developed where residents can access information pertaining to storm drain education. In addition, the website will allow citizen volunteers to enter data directly onto the website. The Planning Department working closely with the Sewer and Water Department are considering a postcard campaign, in which storm water education postcards will be sent with water and sewer bills. In the upcoming years, the City of Springfield plans to work and coordinate with local businesses and industries to establish best management practices (BMPs).

EIGHT TOWNS & THE BAY LOCAL GOVERNANCE COMMITTEE

Location: Newburyport, MA

Contact: Merrimack Valley Planning Commission

Telephone: (978) 374-0519

E-mail: info@mvmc.org

Eight Towns and the Bay Local Governance Committee worked principally with a middle school in Newburyport to stencil storm drains in the local community. A grant funded the purchase of stencils. In order to get approval from the local Public Works Department (PWD), the group gave a presentation to demonstrate how they were going to stencil. The PWD helped them identify areas to stencil and donated traffic cones and other safety materials to the group. Local newspapers advertised the events and volunteers distributed informational flyers.

GROUNDWATER GUARDIANS**Location:** Cape Cod, MA**Contact:** Gabrielle Belfit**Telephone:** (508) 362-3828

Groundwater Guardians have put together a storm drain/storm water coloring sheet that 4th-6th graders can color in and take home. The organization also sponsors interactive physical models, such as "Flush the Kids" through a septic system, at the annual Water Education Children's Festival. These interactive models and games show kids what happens to water and how it can be polluted. An interactive game like this could be developed to show what happens to storm water and how it can pollute local waterbodies.

HOUSATONIC VALLEY ASSOCIATION (HVA)**Storm Drain Awareness Program****Location:** Pittsfield, MA**Contact:** Dennis Regan**Address:** PO Box 1885, Lenox, MA 01240**Telephone:** (413) 637-3188**Fax #:** (413) 394-9818**E-mail:** hvama@bcn.net

The Housatonic Valley Association is working with four different schools in the watershed to mark storm drains with a marker manufactured by das Manufacturing. A local contest was held to determine the marker design. Each custom marker costs about \$4.25. HVA meets with school groups twice. During the first meeting the group uses a watershed model and power point presentation to display how runoff pollutes local waterways. HVA developed two power point presentations, one intended for adults and the other for children. The second time they meet they mark storm drains inlets on streets around the schools. Kids bring brochures and informational materials home to their parents and local press coverage distributes educational information to the local community. HVA received a small grant to produce the brochure and fund the markers.

SAVE THE HARBOR/SAVE THE BAY**Storm Drain Detectives****Location:** Boston Area**Address:** 59 Temple Place, Suite 304, Boston, MA 02111**Telephone:** (617) 451- 2860**Fax #:** (617) 451 - 0496**E-mail:** shsb@savetheharbor.org**Web Site:** www.savetheharbor.org/

In 1995, Save the Harbor/Save the Bay launched the Storm Drain Detective Monitoring Project. The goal of the program was to identify problem storm drains or "hot spots" which might help locate specific sources of pollution to the harbor and rivers. Storm Drain Detectives – volunteers – took water samples from these problem storm drains. In addition, some detectives stenciled the drains with a "Don't Dump, Drains to Boston Harbor" message.

WOODS HOLE OCEANIC INSTITUTION (WHOI) SEA GRANT PROGRAM

Location: Falmouth, MA

Address: 193 Oyster Pond Road, MS #2, Woods Hole, MA 02543-1525

Telephone: (508) 289-2398

Fax #: (508) 457-2172

E-mail: seagrant@whoi.edu

Web Site: www.whoi.edu/seagrant/

When WHOI began to develop their storm drain painting program, they contacted and invited the Falmouth Department of Public Works (DPW) to initial meetings. The organization provided stencils, fact sheets, paint and other necessary materials to volunteer groups. Flyers about the program were distributed to local businesses, newspapers and radio stations. Local businesses donated materials, such as gloves, trash bags, masking tape, and paint. Tracey Crago, from WHOI, states in a letter she sent to potential volunteers, “We vary the location each year to concentrate on areas that attract summer visitors and pedestrians so as to generate concern and awareness about our waters and the problems of pollution from a visiting population as well as our year-round residential population.” Under the guidance of the Falmouth Town Engineering Department, storm drains were color-coded to indicate direct discharge drains — drains that directly connected to the ocean via underground piping — versus indirect discharge drains — drains that collect in leaching basins.

POTENTIAL GRANT OPPORTUNITIES

The following is a list of potential grant opportunities for both municipalities and civic organizations to fund storm drain education programs. You are strongly urged to contact the appropriate organizations for further information and a list of the grant's guidelines.

BEN & JERRY'S FOUNDATION

Contact: Rebecca Golden, Director, (802) 651-9600

Website: <http://www.benjerry.com/foundation/>

Summary: Funds projects that facilitate progressive social change by addressing the underlying conditions of societal and environmental problems.

Eligibility: Non-profit organizations with a budget under \$250,000.

Range: Small Grants – Up to \$1000; Full Grants – \$1000-15,000

Additional Information: Grant applicants need to demonstrate that their projects will lead to societal, institutional and/or environmental change; address the root causes of social or environmental problems; and lead to new ways of thinking and acting.

Schedule: Deadline for proposal March 1st, July 1st, November 1st.

CABOT FAMILY CHARITABLE TRUST

Contact: Ruth Sheer, (617) 753-1550 or rcscabot@aol.com

Address: One Post Office Square, Boston, MA 02109

Summary: The Trust's interests include conservation and energy, pollution control, and waste management.

Range: Average Grant - \$20,000

Schedule: Application deadlines are April 1st and October 1st.

CAPTAIN PLANET FOUNDATION

Contact: Sona Chambers

E-mail: captain.planet.foundation@turner.com

Address: The Captain Planet Foundation; One CNN Center, 6 North; Atlanta, Georgia 30303.

Website: <http://www.turner.com/cpf/>

Summary: Fund projects that promote understanding of environmental issues, focus on hands-on involvement, and involves children and young adults (ages 6-18).

Eligibility: Non-profit organizations.

Range: \$250-\$2500.

Schedule: Contact for more information.

COMMUNITY FOUNDATION OF WESTERN MASSACHUSETTS

Contact: Nancy Reiche, (413) 732-2858 or WMass@CommunityFoundation.org

Website: <http://www.communityfoundation.org> (does not include guidelines)

Summary: The Foundation wishes to serve a wide range of what the community perceives to be the most important needs in the areas of the arts, education, environment, health, housing, and human services. They encourage creative and collaborative responses to existing or emerging problems or opportunities. Grants are usually made to help an organization address an important community-wide concern or a critical issue, or to achieve a broad impact for the public's benefit, rather than to meet routine needs.

Range: Average grant is \$7,000.

Schedule: Contact for more information.

HOME DEPOT BUILDING BETTER COMMUNITIES GRANT

Contact: Local Home Depot District Manager

Website: www.homedepot.com (Check under Company Info and then Environment)

Summary: Assistance is provided to nonprofit organizations that direct efforts toward protecting our natural systems

Additional Support: Team Depot, volunteer program, designed to tackle local projects with the unique energy and expertise of Home Depot associates. Often, Team Depot involvement supplements financial or in-kind contributions. Associates volunteer on their own time.

Eligibility: Non-profit organizations.

Range: Contact for additional information.

Schedule: On-going.

JESSIE B. COX CHARITABLE TRUST

Contact: Katherine S. McHugh, Director, (617) 557-9775

Website: <http://www.agmconnect.org/cox.html>

Summary: The Trust's environmental program aims to conserve New England's natural resources and to protect and enhance the natural and urban environment. Specifically, the Trust is interested in projects that have a positive impact on the protection of natural resources, energy conservation, public awareness of the critical environmental issues facing the region, and the protection of the public's health. The Trust is especially interested in projects that primarily benefit under-served populations and disadvantaged communities, focus on prevention rather than remediation, and foster collaborations among nonprofit organizations and communities.

Range: \$25,000-\$75,000

Eligibility: The Trust prefers to fund groups with budgets under \$1 million.

Schedule: January 15th, April 15th, July 15th, and October 15th.

LAKE AND POND GRANT PROGRAM

Contact: Steve Asen: (617) 626-1353 or steve.asen@state.ma.us

Summary: Lake and Pond protection, preservation, enhancement, and public access.

Eligibility: Municipalities; co-applications are encouraged from Lake and Pond Associations or Districts, and Watershed Associations.

Match: 50% cash match.

\$ Range: \$1,000-\$10,000.

Examples: Controlling non-point pollution; eradicating non-native aquatic plant species, developing lake and watershed management plans.

Schedule: In past years, applications were mailed in October and the deadline was December 31. Call for more information.

MASSACHUSETTS ENVIRONMENTAL TRUST

GENERAL GRANTS

Contact: Robin Peach, (617) 727-0249

Website: <http://www.agmconnect.org/maenvtr1.html>

Summary: Focus on building citizen awareness and action regarding water quality issues.

Eligibility: Nonprofit environmental organizations, municipalities, and state agencies.

Schedule: Contact for more information.

MASSACHUSETTS ENVIRONMENTAL TRUST

REGIONAL PLANNING SUPPORT PROGRAM

Contact: Robbin Peach, (617) 727-0249

Website: <http://www.agmconnect.org/maenvtr1.html>

Summary: Designed to provide assistance in implementing regional plans aimed at point and non-point source pollution, environmentally responsible land use, and habitat restoration.

Eligibility: Nonprofit environmental organizations, municipalities, and state agencies.

Schedule: Contact for more information.

NEW ENGLAND GRASSROOTS ENVIRONMENT FUND

Contact: Cheryl King Fischer, Executive Director, (802) 223-4622,

E-mail: cfisher@plainfield.bypass.com

Address: 27 Bailey Avenue Montpelier, VT 05602

Summary: Small grants program designed to foster and give voice to grassroots environmental initiatives in six New England states.

Eligibility: Applicants must be working at the grassroots level and must demonstrate major volunteer involvement in their programs.

\$ Range: \$500 - \$2500

Examples: Projects that fuel civic engagement, local activism, and social change.

Schedule: Submission deadlines are April 1st, August 1st, and December 1st.

THE ORVIS COMPANY CONSERVATION PROGRAM

Contact: Ryan Shadrin (no phone calls, please), shadrinr@orvis.com

Website: <http://www.orvis.com> (select “Orvis Story” and then “Conservation Agenda”)

Summary: Orvis is the nation’s oldest mail order company specializing in fly-fishing tackle, wing-shooting clothing gear, men’s and women’s apparel, and more. Orvis donates 5% of pre-tax profits annually to organizations that protect fish and wildlife habitat.

Eligibility: Orvis has made grants to watershed groups in the past.

Schedule: Write Orvis a short letter detailing your project idea. There are no deadlines.

OUTDOOR CLASSROOM PROGRAM

Contact: Melissa Griffiths (617) 626-1114

Website: www.state.ma.us/czm/outdoorclassroom.htm

Summary: Funds for environmental improvements, restoration of sites, research including water quality and biodiversity.

Eligibility: Municipalities, public schools, and institutions of higher learning.

Range: Up to \$2500.

Examples: Projects that restore, improve, and/or research natural areas on appropriately open and accessible private lands or public lands at a public school or municipal grounds.

Schedule: Call for more information.

PATAGONIA ENVIRONMENTAL GRANTS PROGRAM

Contact: Jil Zilligen, (805) 643-8616, jil_zilligen@patagonia.com

Address: Patagonia, Inc. P.O. Box 150 Ventura, CA 93002

Website: <http://www.patagonia.com>

Summary: Provides grants to small, grassroots activist organizations with proactive, direct-action agenda. Preference goes to organizations that work on the root causes of problems through innovative, strategic programs that build public involvement and support. The company has a strong interest in river and habitat preservation.

Eligibility: Non-profit grassroots organizations.

Range: First time recipients can expect grants of \$2000- \$5000.

Examples: Funds projects that are action-oriented, build public involvement and support, focus on root causes, and accomplish specific goals and objectives.

Schedule: Applications due April 30th and August 31st each year.

RIVERWAYS SMALL GRANTS PROGRAM

Contact: Eileen Goldberg, *Grants Coordinator*, (617) 626-1546, Eileen.Goldberg@state.ma.us

Website: http://www.state.ma.us/dfwele/RIVER/riv_toc.htm

Summary: Projects selected for Riverways Small Grants should substantively advance some aspect of river, stream and/or adjacent land protection and/or restoration.

Eligibility: Municipal governments (e.g., conservation commissions, planning boards) and non-profit organizations (e.g., watershed or community groups, land trusts).

Range: Up to \$5000.

Examples: Projects that provide public information and education about the importance of rivers and citizen involvement in their protection.

Schedule: Call for more information.

ROBBINS-DE BEAUMONT FOUNDATION

Contact: Joseph Robbins, (617) 338-2816

Summary: The Foundation supports conservation and energy projects, pollution control, and waste management. The Foundation is particularly interested in volunteer participation and community organizing.

Range: \$5,000-\$10,000.

Schedule: Application deadline is March 1.

URBAN RIVERS SMALL GRANTS

Contact: Eileen Goldberg, *Grants Coordinator*, (617) 626-1546, Eileen.Goldberg@state.ma.us

Website: http://www.state.ma.us/dfwele/RIVER/riv_toc.htm

Summary: For projects that seek to restore urban rivers.

Eligibility: Municipalities and non-profit groups located in urbanized areas.

\$ Range: \$3,000 - \$8,000.

Examples: First year grants.

Schedule: Call for more information.

WALMART FOUNDATION ENVIRONMENTAL GRANTS

Contact: All requests for funding must be directed through Wal-Mart Stores, SAM'S CLUBS, Neighborhood Markets and Distribution Centers.

Website: <http://www.walmartfoundation.org/wmstore/goodworks/scripts/index.jsp>

Summary: Fund community projects that protect and preserve natural resources.

Eligibility: Non-profit organizations, including schools and government agencies.

Range: Contact for additional information.

Schedule: On-going.

WESTERN MASSACHUSETTS ELECTRIC COMPANY

ENVIRONMENTAL COMMUNITY GRANT PROGRAM

Contact: Christie L. Bradway: (860) 665-5296 or (800) 286-5000 ext. 701-5296

Website: www.nu.com/environmental/grant.asp

Summary: Provides community based groups with funding for local projects that benefit the environment.

Eligibility: Sponsor local, grassroots type efforts that are frequently overlooked by large grant programs.

\$ Range: \$250- \$1000.

Examples: Projects that protect, preserve and improve the environment.

Schedule: Applications are due by April 15th and October 15th of each year.

XERIC FOUNDATION

Contact: Kendell Clark Engleman, (413) 585-0671 or xericgrant@aol.com

Website: <http://www.xericfoundation.com>

Address: PMB #214; 351 Pleasant Street, #214; Northampton, MA 01060

Summary: The Foundation supports unique projects or services, especially where its funding can leverage more funding.

Eligibility: Nonprofit organizations located in western Massachusetts in the 413 area code.

Range: Average grant is \$2,000.

Schedule: Deadline for application is April 30th.